



<212> DNA

<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic sequence with 4 tandem copies of the GAS binding site found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18 nucleotides complementary to the SV40 early promoter, and a Xho I restriction site.

<400> 3

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60  
cccgaaatat ctgccatctc aattag 86

<210> 4

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic sequence complementary to the SV40 promoter; includes a Hind III restriction site.

<400> 4

gcggcaagct ttttgcaaag cctaggc 27

<210> 5

<211> 271

<212> DNA

<213> Artificial Sequence

<220>

<221> Protein\_Bind

<223> Synthetic promoter for use in biological assays; includes GAS binding sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)).

<400> 5

ctcgagattt cccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60  
aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc 120  
gcccctaact ccgcccagtt ccgcccattc tccgcccctat ggctgactaa ttttttttat 180  
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240  
ttttggaggc ctaggctttt gcaaaaagct t 271

<210> 6

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I restriction site.

<400> 6

gcgctcgagg gatgacagcg atagaacccc gg 32

<210> 7  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> Primer\_Bind  
 <223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III restriction site.

<400> 7  
 gcgaagcttc gcgactcccc ggatccgcct c 31

<210> 8  
 <211> 12  
 <212> DNA  
 <213> Homo sapiens

<400> 8  
 ggggactttc cc 12

<210> 9  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> Primer\_Bind  
 <223> Synthetic primer with 4 tandem copies of the NF-KB binding site (GGGGACTTTTCCC), 18 nucleotides complementary to the 5' end of the SV40 early promoter sequence, and a XhoI restriction site.

<400> 9  
 gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60  
 ccatctcaat tag 73

<210> 10  
 <211> 256  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> Protein\_Bind  
 <223> Synthetic promoter for use in biological assays; includes NF-KB binding sites.

<400> 10  
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 cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180  
 ggccgctcgc gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240  
 cttttgcaaa aagctt 256

<210> 11  
 <211> 2247  
 <212> DNA

<213> Homo sapiens

<400> 11

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ccacggggcca gatgactacg acgaggaaga tgaggatgag gtggaagagg aggagaccaa 180
caggctccct ggtggcagga gcagagtgtc gctgcggtgc tacacctgca agtccctgcc 240
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cagctgccag cccatcacca agacggtgga ggggaccag gtgaccatga cctgctgcca 420
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accatgaggc agcactgagc acggtagggc agcctggtga gaggggccta gctcgctgcc 2160
gacagaagtc actgcctacc tcagggtccc cttacctggg tgggaaataa atttctgctg 2220
tgttgaaaaa aaaaaaaaaa aaaaaaa 2247

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<210> 12

<211> 2644

<212> DNA

<213> Homo sapiens

<400> 12

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<210> 13  
 <211> 1824  
 <212> DNA  
 <213> Homo sapiens

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 caagtaggct gggcctgctg ctggcactgc tgcctgccgt ggtcggtgcc tccacgccag 180  
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 ctgttctctt cctgctgggc aagcccatca tcctgcccac ggatgccacc ccttttgtgt 840

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<210> 14
<211> 1060
<212> DNA
<213> Homo sapiens

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<210> 15
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<212> DNA
<213> Homo sapiens

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<210> 16

<211> 1350

<212> DNA

<213> Homo sapiens

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<221> SITE

<222> (1135)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1148)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1166)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1174)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1181)

<223> n equals a,t,g, or c

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<221> SITE

<222> (1209)  
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&lt;211&gt; 1066

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 20

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&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

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aaaaa						1865

&lt;210&gt; 24

&lt;211&gt; 1297

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 24

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&lt;210&gt; 25

&lt;211&gt; 577

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 25

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ccctctgccc	ggcaggagcc	tcccacagcc	aatgggaagg	gtttgctgtc	cagaaaagacc	360
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gttacaaata	aattagaaaa	aaaaaaaaaa	aaaaaaa			577

&lt;210&gt; 26

&lt;211&gt; 675

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 26

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gtagcctgca	gagaatggaa	acgtgggaaa	ggaatggtat	gtgggggaaa	tgcacccct	600
cagaggactg	aggcatagtc	tctcatctgc	tattgaataa	agaccttcta	tcttgaaaaa	660
aaaaaaaaaa	aaaaa					675

&lt;210&gt; 27

&lt;211&gt; 1558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 27

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cactgccgtc	ctccggaaga	ccttttcccc	tgtctgtttt	ccttcaccga	gtctgtgcat	180
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&lt;210&gt; 28

&lt;211&gt; 563

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 28

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gccacggggg	aggacaacga	tgagtttttc	atggacttcc	tgcaaacact	actggtgggg	120
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caaggggcaa	gttgggaaga	caacctgtag	ggcctgctgg	gtctattggg	aaccaagctg	540
gagtgcagtg	gcacaatctt	ggc				563

&lt;210&gt; 29

&lt;211&gt; 2139

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 29

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&lt;210&gt; 30

&lt;211&gt; 184

09768825 "043504



&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 30

Met Lys Ala Leu Gly Ala Val Leu Leu Ala Leu Leu Leu Cys Gly Arg  
 1 5 10 15

Pro Gly Arg Gly Gln Thr Gln Gln Glu Glu Glu Glu Asp Glu Asp  
 20 25 30

His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu  
 35 40 45

Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg  
 50 55 60

Cys Tyr Thr Cys Lys Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr  
 65 70 75 80

Gln Asn Cys Ser His Gly Gln Thr Cys Thr Thr Leu Ile Ala His Gly  
 85 90 95

Asn Thr Glu Ser Gly Leu Leu Thr Thr His Ser Thr Trp Cys Thr Asp  
 100 105 110

Ser Cys Gln Pro Ile Thr Lys Thr Val Glu Gly Thr Gln Val Thr Met  
 115 120 125

Thr Cys Cys Gln Ser Ser Leu Cys Asn Val Pro Pro Trp Gln Ser Ser  
 130 135 140

Arg Val Gln Asp Pro Thr Gly Lys Gly Ala Gly Gly Pro Arg Gly Ser  
 145 150 155 160

Ser Glu Thr Val Gly Ala Ala Leu Leu Leu Asn Leu Leu Ala Gly Leu  
 165 170 175

Gly Ala Met Gly Ala Arg Arg Pro  
 180

&lt;210&gt; 31

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 31

Met Val Glu Ala Leu Arg Ala Gly Ser Ala Arg Leu Val Ala Ala Pro  
 1 5 10 15

Val Ala Thr Ala Asn Pro Ala Arg Cys Leu Ala Leu Asn Val Ser Leu  
 20 25 30

Arg Glu Trp Thr Ala Arg Tyr Gly Ala Ala Pro Ala Ala Pro Arg Cys  
 35 40 45

Asp Ala Leu Asp Gly Asp Ala Val Val Leu Leu Arg Ala Arg Asp Leu  
 50 55 60

09768826-012604

Phe 65	Asn	Leu	Ser	Ala	Pro	Leu	Ala	Arg	Pro	Val	Gly	Thr	Ser	Leu	Phe 80	
					70					75						
Leu	Gln	Thr	Ala	Leu	Arg	Gly	Trp	Ala	Val	Gln	Leu	Leu	Asp	Leu	Thr	
					85						90					
Phe	Ala	Ala	Ala	Arg	Gln	Pro	Pro	Leu	Ala	Thr	Ala	His	Ala	Arg	Trp	
					100						105					
Lys	Ala	Glu	Arg	Glu	Gly	Arg	Ala	Arg	Arg	Ala	Ala	Leu	Leu	Arg	Ala	
					115						120					
Leu	Gly	Ile	Arg	Leu	Val	Ser	Trp	Glu	Gly	Gly	Arg	Leu	Glu	Trp	Phe	
					130						135					
Gly	Cys	Asn	Lys	Glu	Thr	Thr	Arg	Cys	Phe	Gly	Thr	Val	Val	Gly	Asp	
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Thr	Pro	Ala	Tyr	Leu	Tyr	Glu	Glu	Arg	Trp	Thr	Pro	Pro	Cys	Cys	Leu	
					165						170					
Arg	Ala	Leu	Arg	Glu	Thr	Ala	Arg	Tyr	Val	Val	Gly	Val	Leu	Glu	Ala	
					180						185					
Ala	Gly	Val	Arg	Tyr	Trp	Leu	Glu	Gly	Gly	Ser	Leu	Leu	Gly	Ala	Ala	
					195						200					
Arg	His	Gly	Asp	Ile	Ile	Pro	Trp	Asp	Tyr	Asp	Val	Asp	Leu	Gly	Ile	
					210						215					
Tyr	Leu	Glu	Asp	Val	Gly	Asn	Cys	Glu	Gln	Leu	Arg	Gly	Ala	Glu	Ala	
					225						230					
Gly	Ser	Val	Val	Asp	Glu	Arg	Gly	Phe	Val	Trp	Glu	Lys	Ala	Val	Glu	
					245						250					
Gly	Asp	Phe	Phe	Arg	Val	Gln	Tyr	Ser	Glu	Ser	Asn	His	Leu	His	Val	
					260						265					
Asp	Leu	Trp	Pro	Phe	Tyr	Pro	Arg	Asn	Gly	Val	Met	Thr	Lys	Asp	Thr	
					275						280					
Trp	Leu	Asp	His	Arg	Gln	Asp	Val	Glu	Phe	Pro	Glu	His	Phe	Leu	Gln	
					290						295					
Pro	Leu	Val	Pro	Leu	Pro	Phe	Ala	Gly	Phe	Val	Ala	Gln	Ala	Pro	Asn	
					305						310					
Asn	Tyr	Arg	Arg	Phe	Leu	Glu	Leu	Lys	Phe	Gly	Pro	Gly	Val	Ile	Glu	
					325						330					
Asn	Pro	Gln	Tyr	Pro	Asn	Pro	Ala	Leu	Leu	Ser	Leu	Thr	Gly	Ser	Gly	
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<210> 32  
 <211> 448  
 <212> PRT  
 <213> Homo sapiens

<400> 32

Met Ala Trp Ala Ser Arg Leu Gly Leu Leu Leu Ala Leu Leu Leu Pro  
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Val Val Gly Ala Ser Thr Pro Gly Thr Val Val Arg Leu Asn Lys Ala  
 20 25 30

Ala Leu Ser Tyr Val Ser Glu Ile Gly Lys Ala Pro Leu Gln Arg Ala  
 35 40 45

Leu Gln Val Thr Val Pro His Phe Leu Asp Trp Ser Gly Glu Ala Leu  
 50 55 60

Gln Pro Thr Arg Ile Arg Ile Leu Asn Val His Val Pro Arg Leu His  
 65 70 75 80

Leu Lys Phe Ile Ala Gly Phe Gly Val Arg Leu Leu Ala Ala Ala Asn  
 85 90 95

Phe Thr Phe Lys Val Phe Arg Ala Pro Glu Pro Leu Glu Leu Thr Leu  
 100 105 110

Pro Val Glu Leu Leu Ala Asp Thr Arg Val Thr Gln Ser Ser Ile Arg  
 115 120 125

Thr Pro Val Val Ser Ile Ser Ala Cys Ser Leu Phe Ser Gly His Ala  
 130 135 140

Asn Glu Phe Asp Gly Ser Asn Ser Thr Ser His Ala Leu Leu Val Leu  
 145 150 155 160

Val Gln Lys His Ile Lys Ala Val Leu Ser Asn Lys Leu Cys Leu Ser  
 165 170 175

Ile Ser Asn Leu Val Gln Gly Val Asn Val His Leu Gly Thr Leu Ile  
 180 185 190

Gly Leu Asn Pro Val Gly Pro Glu Ser Gln Ile Arg Tyr Ser Met Val  
 195 200 205

Ser Val Pro Thr Val Thr Ser Asp Tyr Ile Ser Leu Glu Val Asn Ala  
 210 215 220

Val Leu Phe Leu Leu Gly Lys Pro Ile Ile Leu Pro Thr Asp Ala Thr  
 225 230 235 240

Pro Phe Val Leu Pro Arg His Val Gly Thr Glu Gly Ser Met Ala Thr  
 245 250 255

Val Gly Leu Ser Gln Gln Leu Phe Asp Ser Ala Leu Leu Leu Leu Gln  
 260 265 270

09769996 01301

Lys Ala Gly Ala Leu Asn Leu Asp Ile Thr Gly Gln Leu Arg Ser Asp  
275 280 285

Asp Asn Leu Leu Asn Thr Ser Ala Leu Gly Arg Leu Ile Pro Glu Val  
290 295 300

Ala Arg Gln Phe Pro Glu Pro Met Pro Val Val Leu Lys Val Arg Leu  
305 310 315 320

Gly Ala Thr Pro Val Ala Met Leu His Thr Asn Asn Ala Thr Leu Arg  
325 330 335

Leu Gln Pro Phe Val Glu Val Leu Ala Thr Ala Ser Asn Ser Ala Phe  
340 345 350

Gln Ser Leu Phe Ser Leu Asp Val Val Val Asn Leu Arg Leu Gln Leu  
355 360 365

Ser Val Ser Lys Val Lys Leu Gln Gly Thr Thr Ser Val Leu Gly Asp  
370 375 380

Val Gln Leu Thr Val Ala Ser Ser Asn Val Gly Phe Ile Asp Thr Asp  
385 390 395 400

Gln Val Arg Thr Leu Met Gly Thr Val Phe Glu Lys Pro Leu Leu Asp  
405 410 415

His Leu Asn Ala Leu Leu Ala Met Gly Ile Ala Leu Pro Gly Val Val  
420 425 430

Asn Leu His Tyr Val Pro Leu Arg Ser Leu Ser Met Arg Ala Thr Trp  
435 440 445

<210> 33

<211> 183

<212> PRT

<213> Homo sapiens

<400> 33

Met Glu Pro Glu Glu Gly Thr Pro Leu Trp Arg Leu Gln Lys Leu Pro  
1 5 10 15

Ala Glu Leu Gly Pro Gln Leu Leu His Lys Ile Ile Asp Gly Ile Cys  
20 25 30

Gly Arg Ala Tyr Pro Val Tyr Gln Asp Tyr His Thr Val Trp Glu Ser  
35 40 45

Glu Glu Trp Met His Val Leu Glu Asp Ile Ala Lys Phe Phe Lys Ala  
50 55 60

Ile Val Gly Lys Asn Leu Pro Asp Glu Glu Ile Phe Gln Gln Leu Asn  
65 70 75 80

09768825 042204



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2400> 33
Met Leu Phe His Tyr Asp Trp Ile Ser Ile Pro Leu Val Tyr Thr Gln
1 5 10 15

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Val Val Thr Ile Ala Val Tyr Ser Phe Phe Ala Leu Ser Leu Val Gly  
20 25 30

Arg Gln Phe Val Glu Pro Glu Ala Gly Ala Ala Lys Pro Gln Lys Leu  
35 40 45

Leu Lys Pro Gly Gln Glu Pro Ala Pro Ala Leu Gly Asp Pro Asp Met  
50 55 60

Tyr Val Pro Leu Thr Thr Leu Leu Gln Phe Phe Phe Tyr Ala Gly Trp  
65 70 75 80

Leu Lys Val Ala Glu Gln Ile Ile Asn Pro Phe Gly Glu Asp Asp Asp  
85 90 95

Asp Phe Glu Thr Asn Gln Leu Ile Asp Arg Asn Leu Gln Val Ser Leu  
100 105 110

Leu Ser Val Asp Glu Met Tyr Gln Asn Leu Pro Pro Ala Glu Lys Asp  
115 120 125

Gln Tyr Trp Asp Glu Asp Gln Pro Gln Pro Pro Tyr Thr Val Ala Thr  
130 135 140

Ala Ala Glu Ser Leu Arg Pro Ser Phe Leu Gly Ser Thr Phe Asn Leu  
145 150 155 160

Arg Met Ser Asp Asp Pro Glu Gln Ser Leu Gln Val Glu Ala Ser Pro  
165 170 175

Gly Ser Gly Arg Pro Ala Pro Ala Ala Gln Thr Pro Leu Leu Gly Arg  
180 185 190

Phe Leu Gly Val Gly Ala Pro Ser Pro Ala Ile Ser Leu Arg Asn Phe  
195 200 205

Gly Arg Val Arg Gly Thr Pro Arg Pro Pro His Leu Leu Arg Phe Arg  
210 215 220

Ala Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu Glu  
225 230 235 240

Ser Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro  
245 250

<211> 125

<213> Hom

Met Arg Pro Gly Lys Lys Val Leu Val Met Gly Ile Val Asp Leu Asn  
1 5 10 15

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Pro Glu Ser Phe Ala Ile Ser Leu Thr Cys Gly Asp Ser Glu Asp Pro
      20                      25                      30

Pro Ala Asp Val Ala Ile Glu Leu Lys Ala Val Phe Thr Asp Arg Gln
      35                      40                      45

Leu Leu Arg Asn Ser Cys Ile Ser Gly Glu Arg Gly Glu Glu Gln Ser
      50                      55                      60

Ala Ile Pro Tyr Phe Pro Phe Ile Pro Asp Gln Pro Phe Arg Val Glu
      65                      70                      75                      80

Ile Leu Cys Glu His Pro Arg Phe Arg Val Phe Val Asp Gly His Gln
      85                      90                      95

Leu Phe Asp Phe Tyr His Arg Ile Gln Thr Leu Ser Ala Ile Asp Thr
      100                     105                     110

Ile Lys Ile Asn Gly Asp Leu Gln Ile Thr Lys Leu Gly
      115                     120                     125

<210> 37
<211> 170
<212> PRT
<213> Homo sapiens

<400> 37
Met Ile Ser Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr
  1           5           10

Leu Lys Lys Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe
      20                      25                      30

Tyr Asp Thr Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met
      35                      40                      45

Thr Phe Asp Lys Trp Thr Asp Gln Asp Asp Asp Glu Asp Leu Val Asp
      50                      55                      60

Thr Cys Ala Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn
      65                      70                      75                      80

Cys Glu Val Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro
      85                      90                      95

Tyr Lys Arg Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu
      100                     105                     110

Val Ile Ala Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp
      115                     120                     125

Phe Leu Tyr Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser
      130                     135                     140

Thr Ala Pro Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly
      145                     150                     155                     160

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<210> 38
<211> 535
<212> PRT
<213> Homo sapiens
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<400> 38
Met Leu Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Cys Gly Arg Val
  1             5             10             15

Gly Ala Lys Glu Gln Lys Asp Tyr Leu Leu Thr Met Gln Lys Ser Val
      20             25             30

Thr Val Gln Glu Gly Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr
      35             40             45

Pro Gln Asn Gly Trp Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe
  50             55             60

Arg Ala Gly Asp His Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn
  65             70             75             80

Pro Ala Arg Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His Leu Leu
      85             90             95

Gly Asp Pro Gln Asn Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg
      100             105             110

Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met
      115             120             125

Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser
      130             135             140

Gln Asp Leu Leu Ser Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr
      145             150             155             160

Val Gln Glu Gly Leu Cys Val Ser Val Pro Cys Ser Val Leu Tyr Pro
      165             170             175

His Tyr Asn Trp Thr Ala Ser Ser Pro Val Tyr Gly Ser Trp Phe Lys
      180             185             190

Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro
      195             200             205

Ser Gly Lys Val Gln Glu Asp Thr His Gly Arg Phe Leu Leu Leu Gly
      210             215             220

Asp Pro Gln Thr Asn Asn Cys Ser Leu Ser Ile Arg Asp Ala Arg Lys
      225             230             235             240

Gly Asp Ser Gly Lys Tyr Tyr Phe Gln Val Glu Arg Gly Ser Arg Lys
      245             250             255

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Trp Asn Tyr Ile Tyr Asp Lys Leu Ser Val His Val Thr Ala Leu Thr  
 260 265 270  
 His Met Pro Thr Phe Ser Ile Pro Gly Thr Leu Glu Ser Gly His Pro  
 275 280 285  
 Arg Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln Gly Thr Pro  
 290 295 300  
 Pro Thr Ile Thr Trp Met Gly Ala Ser Val Ser Ser Leu Asp Pro Thr  
 305 310 315 320  
 Ile Thr Arg Ser Ser Met Leu Ser Leu Ile Pro Gln Pro Gln Asp His  
 325 330 335  
 Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala Gly Val Thr  
 340 345 350  
 Met Thr Arg Ala Val Arg Leu Asn Ile Ser Tyr Pro Pro Gln Asn Leu  
 355 360 365  
 Thr Met Thr Val Phe Gln Gly Asp Gly Thr Ala Ser Thr Thr Leu Arg  
 370 375 380  
 Asn Gly Ser Ala Leu Ser Val Leu Glu Gly Gln Ser Leu His Leu Val  
 385 390 395 400  
 Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp Thr Trp Gly  
 405 410 415  
 Ser Leu Thr Leu Ser Pro Ser Gln Ser Ser Asn Leu Gly Val Leu Glu  
 420 425 430  
 Leu Pro Arg Val His Val Lys Asp Glu Gly Glu Phe Thr Cys Arg Ala  
 435 440 445  
 Gln Asn Pro Leu Gly Ser Gln His Ile Ser Leu Ser Leu Ser Leu Gln  
 450 455 460  
 Asn Glu Tyr Thr Gly Lys Met Arg Pro Ile Ser Gly Val Thr Leu Gly  
 465 470 475 480  
 Ala Phe Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Tyr Phe Cys  
 485 490 495  
 Ile Ile Phe Val Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro  
 500 505 510  
 Ala Val Ala Trp Gly Ile Gln Ala Trp Arg Thr Gln Thr Leu Ser Gly  
 515 520 525  
 Ala Gln Pro Leu Arg Asp Pro  
 530 535

&lt;210&gt; 39

&lt;211&gt; 274

096326 01201  
 103210 9239250

<213> Homo sapiens

Met Ser Ser Asn Gly Ile Pro Glu Cys Tyr Ala Glu Glu Asp Glu Phe  
1 5 10 15

Ile Tyr Asp Glu Asp Tyr Glu Phe Glu Thr Ser Arg Pro Pro Thr Thr  
35 40 45

Gly Ala Ile Ser Ser Phe Pro Glu Glu Glu Phe Asp Leu Ala Gly Arg  
65 70 75 80

Lys Arg Phe Val Ala Pro Tyr Val Thr Tyr Leu Asn Lys Asp Pro Ser  
85 90 95

Ala Pro Cys Ser Leu Thr Asp Ala Leu Asp His Phe Gln Val Asp Ser  
100 105 110

Leu Asp Glu Ile Ile Pro Asn Asp Leu Lys Lys Ser Asp Leu Pro Pro  
115 120 125

Gln His Ala Pro Arg Asn Ile Thr Val Val Ala Val Glu Gly Cys His  
130 135 140

Ser Phe Val Ile Val Asp Trp Asp Lys Ala Thr Pro Gly Asp Val Val  
145 150 155 160

Thr Gly Tyr Leu Val Tyr Ser Ala Ser Tyr Glu Asp Phe Ile Arg Asn  
165 170 175

Lys Trp Ser Thr Gln Ala Ser Ser Val Thr His Leu Pro Ile Glu Asn  
180 185 190

Leu Lys Pro Asn Thr Arg Tyr Tyr Phe Lys Val Gln Ala Gln Asn Pro  
195 200 205

His Gly Tyr Gly Pro Ile Ser Pro Ser Val Ser Phe Val Thr Glu Ser  
210 215 220

Asp Asn Pro Leu Leu Val Val Arg Pro Pro Gly Gly Glu Pro Ile Trp  
225 230 235 240

Ile Pro Phe Ala Phe Lys His Asp Pro Ser Tyr Thr Asp Cys His Gly  
245 250 255

Arg Gln Tyr Val Lys Arg Thr Leu Val Ser Lys Val Arg Gly Ser Trp  
260 265 270

Ser Leu

<400> 40															
Met	Pro	Ala	Leu	His	Thr	Leu	Asn	Leu	Asp	His	Asn	Leu	Ile	Asp	Ala
1				5					10					15	
Leu	Pro	Pro	Gly	Ala	Phe	Ala	Gln	Leu	Gly	Gln	Leu	Ser	Arg	Leu	Asp
			20					25					30		
Leu	Thr	Ser	Asn	Arg	Leu	Ala	Thr	Leu	Ala	Pro	Asp	Pro	Leu	Phe	Ser
		35					40					45			
Arg	Gly	Arg	Asp	Ala	Glu	Ala	Ser	Pro	Ala	Pro	Leu	Val	Leu	Ser	Phe
	50					55					60				
Ser	Gly	Asn	Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Leu	Trp	Leu	Arg	Arg
65					70					75					80
Leu	Ala	Arg	Pro	Asp	Asp	Leu	Glu	Thr	Cys	Ala	Ser	Pro	Pro	Gly	Leu
				85					90					95	
Ala	Gly	Arg	Tyr	Phe	Trp	Ala	Val	Pro	Glu	Gly	Glu	Phe	Ser	Cys	Glu
			100					105					110		
Pro	Pro	Leu	Ile	Ala	Arg	His	Thr	Gln	Arg	Leu	Trp	Val	Leu	Glu	Gly
		115					120					125			
Gln	Arg	Ala	Thr	Leu	Arg	Cys	Arg	Ala	Leu	Gly	Asp	Pro	Ala	Pro	Thr
	130					135					140				
Met	His	Trp	Val	Gly	Pro	Asp	Asp	Arg	Leu	Val	Gly	Asn	Ser	Ser	Arg
145					150					155					160
Ala	Arg	Ala	Phe	Pro	Asn	Gly	Thr	Leu	Glu	Ile	Gly	Ala	Thr	Gly	Ala
				165					170					175	
Gly	Asp	Ala	Gly	Gly	Tyr	Thr	Cys	Ile	Ala	Thr	Asn	Pro	Ala	Gly	Glu
			180					185					190		
Ala	Thr	Ala	Arg	Val	Glu	Leu	Arg	Val	Leu	Ala	Leu	Pro	His	Gly	Gly
		195					200					205			
Asn	Ser	Ser	Ala	Glu	Gly	Gly	Arg	Pro	Gly	Pro	Ser	Asp	Ile	Ala	Ala
	210					215					220				
Ser	Ala	Arg	Thr	Ala	Ala	Glu	Gly	Glu	Gly	Thr	Leu	Glu	Ser	Glu	Pro
225					230					235					240
Ala	Val	Gln	Val	Thr	Glu	Val	Thr	Ala	Thr	Ser	Gly	Leu	Val	Ser	Trp
				245					250					255	
Gly	Pro	Gly	Arg	Pro	Ala	Asp	Pro	Val	Trp	Met	Phe	Gln	Ile	Gln	Tyr
			260					265					270		

Asn Ser Ser Glu Asp Glu Thr Leu Ile Tyr Arg Ile Val Pro Ala Ser  
275 280 285

Ser His His Phe Leu Leu Lys His Leu Val Pro Gly Ala Asp Tyr Asp  
290 295 300

Leu Cys Leu Leu Ala Leu Ser Pro Ala Ala Gly Pro Ser Asp Leu Thr  
305 310 315 320

Ala Thr Arg Leu Leu Gly Cys Ala His Phe Ser Thr Leu Pro Ala Ser  
325 330 335

Pro Leu Cys His Ala Leu Gln Ala His Val Leu Gly Gly Thr Leu Thr  
340 345 350

Val Ala Val Gly Gly Val Leu Val Ala Ala Leu Leu Val Phe Thr Val  
355 360 365

Ala Leu Leu Val Arg Gly Arg Gly Ala Gly Asn Gly Arg Leu Pro Leu  
370 375 380

Lys Leu Ser His Val Gln Ser Gln Thr Asn Gly Gly Pro Ser Pro Thr  
385 390 395 400

Pro Lys Ala His Pro Pro Arg Ser Pro Pro Pro Arg Pro Gln Arg Ser  
405 410 415

Cys Ser Leu Asp Leu Gly Asp Ala Gly Cys Tyr Gly Tyr Ala Arg Arg  
420 425 430

Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly Leu  
435 440 445

Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu Glu  
450 455 460

Glu Ser Val Val  
465

<210> 41  
<211> 203  
<212> PRT  
<213> Homo sapiens

<400> 41  
Met Ala Arg Pro Arg Pro Arg Glu Tyr Lys Ala Gly Asp Leu Val Phe  
1 5 10 15

Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu  
20 25 30

Pro Glu Gly Ala Val Lys Pro Pro Ala Asn Lys Tyr Pro Ile Phe Phe  
35 40 45

Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro  
50 55 60

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Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys Gly  
65 70 75 80

Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys Phe  
85 90 95

Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu Gly  
100 105 110

Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp Arg  
115 120 125

Val Glu Glu Asp Gly Lys Gly Lys Arg Lys Asn Glu Lys Ala Gly Ser  
130 135 140

Lys Arg Lys Lys Ser Tyr Thr Ser Lys Lys Ser Ser Lys Gln Ser Arg  
145 150 155 160

Lys Ser Pro Gly Asp Glu Asp Asp Lys Asp Cys Lys Glu Glu Glu Asn  
165 170 175

Lys Ser Ser Ser Glu Gly Gly Asp Ala Gly Asn Asp Thr Arg Asn Thr  
180 185 190

Thr Ser Asp Leu Gln Lys Thr Ser Glu Gly Thr  
195 200

<210> 42  
<211> 253  
<212> PRT  
<213> Homo sapiens

<400> 42  
Met Arg Ser Gly Lys Met Ala Pro Lys Pro Gln Ser Arg Cys Thr Ser  
1 5 10 15

Thr Arg Ser Ala Gly Glu Ala Pro Ser Glu Asn Gln Ser Pro Ser Lys  
20 25 30

Gly Pro Glu Glu Ala Ser Ser Glu Val Gln Asp Thr Asn Glu Val His  
35 40 45

Val Pro Gly Asp Gln Asp Glu Pro Gln Thr Leu Gly Lys Lys Gly Ser  
50 55 60

Lys Asn Asn Ile Ser Val Tyr Met Thr Leu Asn Gln Lys Lys Ser Asp  
65 70 75 80

Ser Ser Ser Ala Ser Val Cys Ser Ile Asp Ser Thr Asp Asp Leu Lys  
85 90 95

Ser Ser Asn Ser Glu Cys Ser Ser Ser Glu Ser Phe Asp Phe Pro Pro  
100 105 110

Gly Ser Met His Ala Pro Ser Thr Ser Ser Thr Ser Ser Ser Lys  
115 120 125

Glu	Glu	Lys	Lys	Leu	Ser	Asn	Ser	Leu	Lys	Met	Lys	Val	Phe	Ser	Lys
130						135					140				
Asn	Val	Ser	Lys	Cys	Val	Thr	Pro	Asp	Gly	Arg	Thr	Ile	Cys	Val	Gly
145					150					155					160
Asp	Ile	Val	Trp	Ala	Lys	Ile	Tyr	Gly	Phe	Pro	Trp	Trp	Pro	Ala	Arg
				165					170					175	
Ile	Leu	Thr	Ile	Thr	Val	Ser	Arg	Lys	Asp	Asn	Gly	Leu	Leu	Val	Arg
			180					185					190		
Gln	Glu	Ala	Arg	Ile	Ser	Trp	Phe	Gly	Ser	Pro	Thr	Thr	Ser	Phe	Leu
		195					200					205			
Ala	Leu	Ser	Gln	Leu	Ser	Pro	Phe	Leu	Glu	Asn	Phe	Gln	Ser	Arg	Phe
	210					215					220				
Asn	Lys	Lys	Arg	Lys	Gly	Leu	Tyr	Arg	Lys	Ala	Ile	Thr	Glu	Ala	Ala
225					230					235					240
Lys	Ala	Ala	Lys	Gln	Leu	Thr	Pro	Glu	Val	Arg	Ala	Cys			
				245					250						
<210> 43															
<211> 314															
<212> PRT															
<213> Homo sapiens															
<400> 43															
Met	Pro	His	Ala	Phe	Lys	Pro	Gly	Asp	Leu	Val	Phe	Ala	Lys	Met	Lys
1				5					10					15	
Gly	Tyr	Pro	His	Trp	Pro	Ala	Arg	Ile	Asp	Asp	Ile	Ala	Asp	Gly	Ala
			20					25					30		
Val	Lys	Pro	Pro	Pro	Asn	Lys	Tyr	Pro	Ile	Phe	Phe	Phe	Gly	Thr	His
		35					40					45			
Glu	Thr	Ala	Phe	Leu	Gly	Pro	Lys	Asp	Leu	Phe	Pro	Tyr	Asp	Lys	Cys
	50					55					60				
Lys	Asp	Lys	Tyr	Gly	Lys	Pro	Asn	Lys	Arg	Lys	Gly	Phe	Asn	Glu	Gly
65					70					75					80
Leu	Trp	Glu	Ile	Gln	Asn	Asn	Pro	His	Ala	Ser	Tyr	Ser	Ala	Pro	Pro
				85					90					95	
Pro	Val	Ser	Ser	Ser	Asp	Ser	Glu	Ala	Pro	Glu	Ala	Asn	Pro	Ala	Asp
			100					105					110		
Gly	Ser	Asp	Ala	Asp	Glu	Asp	Asp	Glu	Asp	Arg	Gly	Val	Met	Ala	Val
		115					120					125			
Thr	Ala	Val	Thr	Ala	Thr	Ala	Ala	Ser	Asp	Arg	Met	Glu	Ser	Asp	Ser
	130					135						140			

Ser Thr Thr Ser Arg Leu  
85

<210> 45  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 45  
 Met Ala Ala Ser Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser  
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 Trp Ser Arg Glu Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro  
                   20                  25                  30  
 Val Cys Ala Lys Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp  
           35                  40                  45  
 Lys Pro Val Thr Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His  
           50                  55                  60  
 Arg Lys Gly Trp Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp  
           65                  70                  75                  80  
 His Ala Ala Glu Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met  
                   85                  90                  95  
 Trp Gly Thr Phe Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg  
           100                  105                  110  
 Arg Gly Asn Gln Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser  
           115                  120                  125  
 Pro His Lys Tyr Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser  
           130                  135                  140  
 Tyr Phe Tyr Lys Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser  
           145                  150                  155                  160  
 Lys Val Val Tyr Lys Tyr Leu  
                   165

<210> 46  
 <211> 281  
 <212> PRT  
 <213> Homo sapiens

<400> 46  
 Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu Leu  
           1                  5                  10                  15  
 Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val Gln Gly  
           20                  25                  30  
 Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser Pro Pro Asp  
           35                  40                  45  
 His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr Arg Pro Ser Gln  
           50                  55                  60



Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg Cys Cys Asp Pro Gly  
65 70 75 80

Thr Ser Met Tyr Pro Ala Thr Ala Val Pro Gln Ile Asn Ile Thr Ile  
85 90 95

Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Arg Gly Leu Gln Gly Lys  
100 105 110

Tyr Gly Lys Thr Gly Ser Ala Gly Ala Arg Gly His Thr Gly Pro Lys  
115 120 125

Gly Gln Lys Gly Ser Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His  
130 135 140

Tyr Ala Ala Phe Ser Val Gly Arg Lys Lys Pro Met His Ser Asn His  
145 150 155 160

Tyr Tyr Gln Thr Val Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp  
165 170 175

His Phe Asn Met Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu  
180 185 190

Tyr Phe Phe Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr  
195 200 205

Leu His Ile Met Lys Asn Glu Glu Glu Val Ala Ile Leu Phe Ala Gln  
210 215 220

Val Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu  
225 230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu  
245 250 255

Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly  
260 265 270

Tyr Leu Val Lys His Ala Thr Glu Pro  
275 280

<210> 47  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 47  
Met Lys Gly Ser Arg Ala Leu Leu Leu Val Ala Leu Thr Leu Phe Cys  
1 5 10 15

Ile Cys Arg Met Ala Thr Gly Glu Asp Asn Asp Glu Phe Phe Met Asp  
20 25 30

Phe Leu Gln Thr Leu Leu Val Gly Thr Pro Glu Glu Leu Tyr Glu Gly  
35 40 45

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Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro  
195 200 205

Ser	Gly	Lys	Val	Gln	Glu	Asp	Thr	His	Gly	Arg	Phe	Leu	Leu	Leu	Gly
210			215			220									
Asp	Pro	Gln	Thr	Asn	Asn	Cys	Ser	Leu	Ser	Ile	Arg	Asp	Ala	Arg	Lys
225			230			235			240						
Gly	Asp	Ser	Gly	Lys	Tyr	Tyr	Phe	Gln	Val	Glu	Arg	Gly	Ser	Arg	Lys
			245			250			255						
Trp	Asn	Tyr	Ile	Tyr	Asp	Lys	Leu	Ser	Val	His	Val	Thr	Ala	Leu	Thr
			260			265			270						
His	Met	Pro	Thr	Phe	Ser	Ile	Pro	Gly	Thr	Leu	Glu	Ser	Gly	His	Pro
275						280			285						
Arg	Asn	Leu	Thr	Cys	Ser	Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro
290			295			300									
Pro	Thr	Ile	Thr	Trp	Met	Gly	Ala	Ser	Val	Ser	Ser	Leu	Asp	Pro	Thr
305			310			315			320						
Ile	Thr	Arg	Ser	Ser	Met	Leu	Ser	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His
			325			330			335						
Gly	Thr	Ser	Leu	Thr	Cys	Gln	Val	Thr	Leu	Pro	Gly	Ala	Gly	Val	Thr
			340			345			350						
Met	Thr	Arg	Ala	Val	Arg	Leu	Asn	Ile	Ser	Tyr	Pro	Pro	Gln	Asn	Leu
355						360			365						
Thr	Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Ala	Ser	Thr	Thr	Leu	Arg
370			375			380									
Asn	Gly	Ser	Ala	Leu	Ser	Val	Leu	Glu	Gly	Gln	Ser	Leu	His	Leu	Val
385			390			395			400						
Cys	Ala	Val	Asp	Ser	Asn	Pro	Pro	Ala	Arg	Leu	Ser	Trp	Thr	Trp	Gly
			405			410			415						
Ser	Leu	Thr	Leu	Ser	Pro	Ser	Gln	Ser	Ser	Asn	Leu	Gly	Val	Leu	Glu
			420			425			430						
Leu	Pro	Arg	Val	His	Val	Lys	Asp	Glu	Gly	Glu	Phe	Thr	Cys	Arg	Ala
435						440			445						
Gln	Asn	Pro	Leu	Gly	Ser	Gln	His	Ile	Ser	Leu	Ser	Leu	Ser	Leu	Gln
450			455			460									
Asn	Glu	Tyr	Thr	Gly	Lys	Met	Arg	Pro	Ile	Ser	Gly	Val	Thr	Leu	Gly
465			470			475			480						
Ala	Phe	Gly	Gly	Ala	Gly	Ala	Thr	Ala	Leu	Val	Phe	Leu	Tyr	Phe	Cys
			485			490			495						
Ile	Ile	Phe	Val	Val	Val	Arg	Ser	Cys	Arg	Lys	Lys	Ser	Ala	Arg	Pro
			500			505			510						

Ala Val Gly Val Gly Asp Thr Gly Met Glu Asp Ala Asn Ala Val Arg  
 515 520 525

Gly Ser Ala Ser Gln Gly Pro Leu Ile Glu Ser Pro Ala Asp Asp Ser  
 530 535 540

Pro Pro His His Ala Pro Pro Ala Leu Ala Thr Pro Ser Pro Glu Glu  
 545 550 555 560

Gly Glu Ile Gln Tyr Ala Ser Leu Ser Phe His Lys Ala Arg Pro Gln  
 565 570 575

Tyr Pro Gln Glu Gln Glu Ala Ile Gly Tyr Glu Tyr Ser Glu Ile Asn  
 580 585 590

Ile Pro Lys  
 595

<210> 49  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 49  
 Met Glu Lys Phe Pro Trp Gln Lys Leu Arg Val Arg Thr Gly Cys Gly  
 1 5 10 15

Gly Pro Gln Val Cys Gly Gly Tyr His Leu Cys Leu Ala Val Leu Met  
 20 25 30

Gly Ile Pro Ser Pro Arg Glu Gly Cys Arg Ser Trp Asp Val Ala Ala  
 35 40 45

Glu Val Trp Thr Gln Arg Pro Arg Ala Ala Val Leu Leu Leu Thr Gly  
 50 55 60

Gly Gly Glu Arg Thr Pro Arg Thr Gln Pro Gly Thr Glu Glu Ala Thr  
 65 70 75 80

Gly Pro Gly Ala Cys Ala Gly Trp Ile Ala Gln Asp Thr Pro Asn Pro  
 85 90 95

Phe Ser Lys Ala Gly Ala Gly Ala Gly Gly Glu Gly Thr Arg Gln Ser  
 100 105 110

Ala Gly Arg Ala Gly Gly Glu Pro Gly Gly Gly Gly Glu Gly Pro Trp  
 115 120 125

Val Arg Val Ser Trp Pro Pro Leu Leu Gln Gly Arg Gln Gly Gly  
 130 135 140

<210> 50  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

096886 043501

Met Leu Ser Leu Glu Phe Leu Ser Trp Ser Val Ser Pro Phe Pro Ser  
1 5 10 15

Pro Arg His Pro Ser Thr Pro His Arg Ser His Arg Ala Ser Pro His  
20 25 30

Pro Asp Arg Pro Pro Lys Asn Lys Gly Glu Val Ile Arg Ala Ser Ala  
35 40 45

Ala Ser Arg Gln Thr Gln Gln Cys Arg Val Gly Val Leu Gly Val Leu  
50 55 60

Asp Asp Pro Gly Pro Glu Leu Glu Leu Gln Glu Ala Ala Val Val Val  
65 70 75 80

Arg Arg Leu Arg His Glu Ala Gly Lys Gly Gln Gly His Gln Arg Leu  
85 90 95

Gln Glu Val Leu Gly Lys Leu His Ile Leu Pro Val Val Gln Pro Arg  
100 105 110

Val Leu Gly His Asp Ala Ile Ala Gly Val Glu Gly Pro Gln Val His  
115 120 125

Val Gln Val Val Ala Phe Ala Val Leu His Ala Glu Lys Val Ala Leu  
130 135 140

Asp Arg Leu Leu Pro Tyr Glu Ala Ala Leu Ile His His Arg Ala Gly  
145 150 155 160

Leu Cys Pro Pro Gln Leu Leu Ala Val Ala His Val Leu Gln Val Asp  
165 170 175

Ala Gln Val His Val Val Val Pro Trp Asp Asp Val Pro Val Ala Gly  
180 185 190

Gly Pro Gln Gln  
195

<211> 160

<213> Homo sapiens

Met Arg Glu Gly Trp His Trp Gln Glu Glu Ser Thr Arg Thr Arg Met  
1 5 10 15

Gly Ser Asp Leu Gln Ile Tyr Gln Met Val Met Pro Thr Gly Ser Arg  
20 25 30

Gly Tyr Ala Trp Gly His Pro Gly Ser Ser Gln Ser Trp Arg Glu Thr  
35 40 45

Gly Met Ser Arg Arg Pro Ala Gly Pro Ser Thr Ala Pro Asp Pro Lys  
50 55 60

Leu Leu Gln Gln Gln Glu Arg Arg Val Lys Gln Leu Leu Gly Glu Ala  
145 150 155 160

His Gly Gly His Gly Ala Leu Gly Thr His Met Pro Trp Gln His Lys  
                   165                  170                  175

Arg Gly Gly Ile Arg Gly Gln Asp Asp Gly Leu Ala Gln Gln Glu Glu  
                   180                  185                  190

Asn Ser Ile Asp Phe Gln Gly Asn Val Val Thr Gly Asp Ser Gly His  
                   195                  200                  205

Thr Asp His Gly Ile Ala Asp Leu Gly Leu Arg Thr His Gly Val Glu  
                   210                  215                  220

Ala Asn  
 225

<210> 53  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 53  
 Pro Gly Arg Pro Thr Arg Pro Leu Lys Phe Val Ile Leu His Ala Glu  
   1                  5                  10                  15

Asp Asp Thr Asp Glu Ala Leu Arg Val Gln Asn Leu Leu Gln Asp Asp  
                   20                  25                  30

Phe Gly Ile Lys Pro Gly Ile Ile Phe Ala Glu Met Pro Cys Gly Arg  
                   35                  40                  45

Gln His Leu Gln Asn Leu Asp Asp Ala Val Asn Gly Ser Ala Trp Thr  
                   50                  55                  60

Ile Leu Leu Leu Thr Glu Asn Phe Leu Arg Asp Thr Trp Cys Asn Phe  
   65                  70                  75                  80

Gln Phe Tyr Thr Ser Leu Met Asn Ser Val Asn Arg Gln His Lys Tyr  
                   85                  90                  95

Asn Ser Val Ile Pro Met Arg Pro Leu Asn Asn Pro Leu Pro Arg Glu  
                   100                  105                  110

Arg Thr Pro Phe Ala Leu Gln Thr Ile Asn Ala Leu Glu Glu Glu Ser  
                   115                  120                  125

Arg Gly Phe Pro Thr Gln Val Glu Arg Ile Phe Gln Glu Ser Val Tyr  
                   130                  135                  140

Lys Thr Gln Gln Thr Ile Trp Lys Glu Thr Arg Asn Met Val Gln Arg  
   145                  150                  155                  160

Gln Phe Ile Ala

<210> 54

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<211> 314  
 <212> PRT  
 <213> Homo sapiens

<400> 54

Arg	Val	Asp	Pro	Arg	Val	Arg	Gly	Arg	Val	Gly	Phe	Glu	Ser	Leu	Lys	1	5	10	15
Ser	Asp	Phe	Asn	Lys	Tyr	Trp	Val	Pro	Cys	Val	Trp	Phe	Thr	Asn	Leu	20	25	30	
Ala	Ala	Gln	Ala	Arg	Arg	Asp	Gly	Arg	Ile	Arg	Asp	Asp	Ile	Ala	Leu	35	40	45	
Cys	Leu	Leu	Leu	Glu	Glu	Leu	Asn	Lys	Tyr	Arg	Ala	Lys	Cys	Ser	Met	50	55	60	
Leu	Phe	His	Tyr	Asp	Trp	Ile	Ser	Ile	Pro	Leu	Val	Tyr	Thr	Gln	Val	65	70	75	80
Val	Thr	Ile	Ala	Val	Tyr	Ser	Phe	Phe	Ala	Leu	Ser	Leu	Val	Gly	Arg	85	90	95	
Gln	Phe	Val	Glu	Pro	Glu	Ala	Gly	Ala	Ala	Lys	Pro	Gln	Lys	Leu	Leu	100	105	110	
Lys	Pro	Gly	Gln	Glu	Pro	Ala	Pro	Ala	Leu	Gly	Asp	Pro	Asp	Met	Tyr	115	120	125	
Val	Pro	Leu	Thr	Thr	Leu	Leu	Gln	Phe	Phe	Phe	Tyr	Ala	Gly	Trp	Leu	130	135	140	
Lys	Val	Ala	Glu	Gln	Ile	Ile	Asn	Pro	Phe	Gly	Glu	Asp	Asp	Asp	Asp	145	150	155	160
Phe	Glu	Thr	Asn	Gln	Leu	Ile	Asp	Arg	Asn	Leu	Gln	Val	Ser	Leu	Leu	165	170	175	
Ser	Val	Asp	Glu	Met	Tyr	Gln	Asn	Leu	Pro	Pro	Ala	Glu	Lys	Asp	Gln	180	185	190	
Tyr	Trp	Asp	Glu	Asp	Gln	Pro	Gln	Pro	Pro	Tyr	Thr	Val	Ala	Thr	Ala	195	200	205	
Ala	Glu	Ser	Leu	Arg	Pro	Ser	Phe	Leu	Gly	Ser	Thr	Phe	Asn	Leu	Arg	210	215	220	
Met	Ser	Asp	Asp	Pro	Glu	Gln	Ser	Leu	Gln	Val	Glu	Ala	Ser	Pro	Gly	225	230	235	240
Ser	Gly	Arg	Pro	Ala	Pro	Ala	Ala	Gln	Thr	Pro	Leu	Leu	Gly	Arg	Phe	245	250	255	
Leu	Gly	Val	Gly	Ala	Pro	Ser	Pro	Ala	Ile	Ser	Leu	Arg	Asn	Phe	Gly	260	265	270	
Arg	Val	Arg	Gly	Thr	Pro	Arg	Pro	Pro	His	Leu	Leu	Arg	Phe	Arg	Ala	275	280	285	

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Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu Glu Ser  
 290 295 300

Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro  
 305 310

<210> 55  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

<400> 55  
 Asn Thr Thr His Tyr Arg Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser  
 1 5 10 15

Gly Ile Pro Gly Ser Thr His Ala Ser Ala Gly Ser Val Ala Asp Ser  
 20 25 30

Asp Ala Val Val Lys Leu Asp Asp Gly His Leu Asn Asn Ser Leu Ser  
 35 40 45

Ser Pro Val Gln Ala Asp Val Tyr Phe Pro Arg Leu Ile Val Pro Phe  
 50 55 60

Cys Gly His Ile Lys Gly Gly Met Arg Pro Gly Lys Lys Val Leu Val  
 65 70 75 80

Met Gly Ile Val Asp Leu Asn Pro Glu Ser Phe Ala Ile Ser Leu Thr  
 85 90 95

Cys Gly Asp Ser Glu Asp Pro Pro Ala Asp Val Ala Ile Glu Leu Lys  
 100 105 110

Ala Val Phe Thr Asp Arg Gln Leu Leu Arg Asn Ser Cys Ile Ser Gly  
 115 120 125

Glu Arg Gly Glu Glu Gln Ser Ala Ile Pro Tyr Phe Pro Phe Ile Pro  
 130 135 140

Asp Gln Pro Phe Arg Val Glu Ile Leu Cys Glu His Pro Arg Phe Arg  
 145 150 155 160

Val Phe Val Asp Gly His Gln Leu Phe Asp Phe Tyr His Arg Ile Gln  
 165 170 175

Thr Leu Ser Ala Ile Asp Thr Ile Lys Ile Asn Gly Asp Leu Gln Ile  
 180 185 190

Thr Lys Leu Gly  
 195

<210> 56  
 <211> 231  
 <212> PRT  
 <213> Homo sapiens

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&lt;400&gt; 56

Leu Arg Ala Ala Leu Pro Ala Leu Leu Leu Pro Leu Leu Gly Leu Ala  
 1 5 10 15

Ala Ala Ala Val Ala Asp Cys Pro Ser Ser Thr Trp Ile Gln Phe Gln  
 20 25 30

Asp Ser Cys Tyr Ile Phe Leu Gln Glu Ala Ile Lys Val Glu Ser Ile  
 35 40 45

Glu Asp Val Arg Asn Gln Cys Thr Asp His Gly Ala Asp Met Ile Ser  
 50 55 60

Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr Leu Lys Lys  
 65 70 75 80

Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe Tyr Asp Thr  
 85 90 95

Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met Thr Phe Asp  
 100 105 110

Lys Trp Thr Asp Gln Asp Asp Asp Glu Asp Leu Val Asp Thr Cys Ala  
 115 120 125

Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn Cys Glu Val  
 130 135 140

Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro Tyr Lys Arg  
 145 150 155 160

Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu Val Ile Ala  
 165 170 175

Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp Phe Leu Tyr  
 180 185 190

Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser Thr Ala Pro  
 195 200 205

Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly Glu Glu Asn  
 210 215 220

Glu Tyr Pro Val Gln Phe Asp  
 225 230

&lt;210&gt; 57

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

Met Ser Ser Asn Gly Ile Pro Glu Cys Tyr Ala Glu Glu Asp Glu Phe  
 1 5 10 15

Ser Gly Leu Glu Thr Asp Thr Ala Val Pro Thr Glu Glu Ala Tyr Val

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			20					25					30			
Ile	Tyr	Asp	Glu	Asp	Tyr	Glu	Phe	Glu	Thr	Ser	Arg	Pro	Pro	Thr	Thr	
		35					40					45				
Thr	Glu	Pro	Ser	Thr	Thr	Ala	Thr	Thr	Pro	Arg	Val	Ile	Pro	Glu	Glu	
	50					55					60					
Gly	Ala	Ile	Ser	Ser	Phe	Pro	Glu	Glu	Glu	Phe	Asp	Leu	Ala	Gly	Arg	
65					70					75					80	
Lys	Arg	Phe	Val	Ala	Pro	Tyr	Val	Thr	Tyr	Leu	Asn	Lys	Asp	Pro	Ser	
				85					90					95		
Ala	Pro	Cys	Ser	Leu	Thr	Asp	Ala	Leu	Asp	His	Phe	Gln	Val	Asp	Ser	
			100					105					110			
Leu	Asp	Glu	Ile	Ile	Pro	Asn	Asp	Leu	Lys	Lys	Ser	Asp	Leu	Pro	Pro	
		115					120					125				
Gln	His	Ala	Pro	Arg	Asn	Ile	Thr	Val	Val	Ala	Val	Glu	Gly	Cys	His	
	130					135					140					
Ser	Phe	Val	Ile	Val	Asp	Trp	Asp	Lys	Ala	Thr	Pro	Gly	Asp	Val	Val	
145					150					155					160	
Thr	Gly	Tyr	Leu	Val	Tyr	Ser	Ala	Ser	Tyr	Glu	Asp	Phe	Ile	Arg	Asn	
				165					170					175		
Lys	Trp	Ser	Thr	Gln	Ala	Ser	Ser	Val	Thr	His	Leu	Pro	Ile	Glu	Asn	
			180					185					190			
Leu	Lys	Pro	Asn	Thr	Arg	Tyr	Tyr	Phe	Lys	Val	Gln	Ala	Gln	Asn	Pro	
		195					200					205				
His	Gly	Tyr	Gly	Pro	Ile	Ser	Pro	Ser	Val	Ser	Phe	Val	Thr	Glu	Ser	
	210					215					220					
Asp	Asn	Pro	Leu	Leu	Val	Val	Arg	Pro	Pro	Gly	Gly	Glu	Pro	Ile	Trp	
225					230					235					240	
Ile	Pro	Phe	Ala	Phe	Lys	His	Asp	Pro	Ser	Tyr	Thr	Asp	Cys	His	Gly	
				245					250					255		
Arg	Gln	Tyr	Val	Lys	Arg	Thr	Trp	Tyr	Arg	Lys	Phe	Val	Gly	Val	Val	
			260					265					270			
Leu	Cys	Asn	Ser	Leu	Arg	Tyr	Lys	Ile	Tyr	Leu	Ser	Asp	Asn	Leu	Lys	
		275					280					285				
Asp	Thr	Phe	Tyr	Ser	Ile	Gly	Asp	Ser	Trp	Gly	Arg	Gly	Glu	Asp	His	
	290					295					300					
Cys	Gln	Phe	Val	Asp	Ser	His	Leu	Asp	Gly	Arg	Thr	Gly	Pro	Gln	Ser	
305					310					315					320	
Tyr	Val	Glu	Ala	Leu	Pro	Thr	Ile	Gln	Gly	Tyr	Tyr	Arg	Gln	Tyr	Arg	
				325					330					335		

Gln Glu Pro Val Arg Phe Gly Asn Ile Gly Phe Gly Thr Pro Tyr Tyr  
                   340                  345                  350

Tyr Val Gly Trp Tyr Glu Cys Gly Val Ser Ile Pro Gly Lys Trp  
                   355                  360                  365

<210> 58  
 <211> 565  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (270)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 58  
 Met Thr Gly Leu Val Asp Leu Thr Leu Ser Arg Asn Ala Ile Thr Arg  
   1                  5                  10                  15  
 Ile Gly Ala Arg Ala Phe Gly Asp Leu Glu Ser Leu Arg Ser Leu His  
                   20                  25                  30  
 Leu Asp Gly Asn Arg Leu Val Glu Leu Gly Thr Gly Ser Leu Arg Gly  
                   35                  40                  45  
 Pro Val Asn Leu Gln His Leu Ile Leu Ser Gly Asn Gln Leu Gly Arg  
                   50                  55                  60  
 Ile Ala Pro Gly Ala Phe Asp Asp Phe Leu Glu Ser Leu Glu Asp Leu  
   65                  70                  75                  80  
 Asp Leu Ser Tyr Asn Asn Leu Arg Gln Val Pro Trp Ala Gly Ile Gly  
                   85                  90                  95  
 Ala Met Pro Ala Leu His Thr Leu Asn Leu Asp His Asn Leu Ile Asp  
                   100                  105                  110  
 Ala Leu Pro Pro Gly Ala Phe Ala Gln Leu Gly Gln Leu Ser Arg Leu  
                   115                  120                  125  
 Asp Leu Thr Ser Asn Arg Leu Ala Thr Leu Ala Pro Asp Pro Leu Phe  
   130                  135                  140  
 Ser Arg Gly Arg Asp Ala Glu Ala Ser Pro Ala Pro Leu Val Leu Ser  
  145                  150                  155                  160  
 Phe Ser Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg  
                   165                  170                  175  
 Arg Leu Ala Arg Pro Asp Asp Leu Glu Thr Cys Ala Ser Pro Pro Gly  
                   180                  185                  190  
 Leu Ala Gly Arg Tyr Phe Trp Ala Val Pro Glu Gly Glu Phe Ser Cys  
                   195                  200                  205

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Glu	Pro	Pro	Leu	Ile	Ala	Arg	His	Thr	Gln	Arg	Leu	Trp	Val	Leu	Glu
210						215					220				
Gly	Gln	Arg	Ala	Thr	Leu	Arg	Cys	Arg	Ala	Leu	Gly	Asp	Pro	Ala	Pro
225					230					235					240
Thr	Met	His	Trp	Val	Gly	Pro	Asp	Asp	Arg	Leu	Val	Gly	Asn	Ser	Ser
				245					250					255	
Arg	Ala	Arg	Ala	Phe	Pro	Asn	Gly	Thr	Leu	Glu	Ile	Gly	Xaa	Thr	Gly
			260					265					270		
Ala	Gly	Asp	Ala	Gly	Gly	Tyr	Thr	Cys	Ile	Ala	Thr	Asn	Pro	Ala	Gly
		275					280					285			
Glu	Ala	Thr	Ala	Arg	Val	Glu	Leu	Arg	Val	Leu	Ala	Leu	Pro	His	Gly
	290					295					300				
Gly	Asn	Ser	Ser	Ala	Glu	Gly	Gly	Arg	Pro	Gly	Pro	Ser	Asp	Ile	Ala
305					310					315					320
Ala	Ser	Ala	Arg	Thr	Ala	Ala	Glu	Gly	Glu	Gly	Thr	Leu	Glu	Ser	Glu
				325					330					335	
Pro	Ala	Val	Gln	Val	Thr	Glu	Val	Thr	Ala	Thr	Ser	Gly	Leu	Val	Ser
			340					345					350		
Trp	Gly	Pro	Gly	Arg	Pro	Ala	Asp	Pro	Val	Trp	Met	Phe	Gln	Ile	Gln
		355					360					365			
Tyr	Asn	Ser	Ser	Glu	Asp	Glu	Thr	Leu	Ile	Tyr	Arg	Ile	Val	Pro	Ala
	370					375					380				
Ser	Ser	His	His	Phe	Leu	Leu	Lys	His	Leu	Val	Pro	Gly	Ala	Asp	Tyr
385					390					395					400
Asp	Leu	Cys	Leu	Leu	Ala	Leu	Ser	Pro	Ala	Ala	Gly	Pro	Ser	Asp	Leu
				405					410					415	
Thr	Ala	Thr	Arg	Leu	Leu	Gly	Cys	Ala	His	Phe	Ser	Thr	Leu	Pro	Ala
			420					425					430		
Ser	Pro	Leu	Cys	His	Ala	Leu	Gln	Ala	His	Val	Leu	Gly	Gly	Thr	Leu
		435					440					445			
Thr	Val	Ala	Val	Gly	Gly	Val	Leu	Val	Ala	Ala	Leu	Leu	Val	Phe	Thr
	450					455					460				
Val	Ala	Leu	Leu	Val	Arg	Gly	Arg	Gly	Ala	Gly	Asn	Gly	Arg	Leu	Pro
465					470					475					480
Leu	Lys	Leu	Ser	His	Val	Gln	Ser	Gln	Thr	Asn	Gly	Gly	Pro	Ser	Pro
				485					490					495	
Thr	Pro	Lys	Ala	His	Pro	Pro	Arg	Ser	Pro	Pro	Pro	Arg	Pro	Gln	Arg
			500					505					510		
Ser	Cys	Ser	Leu	Asp	Leu	Gly	Asp	Ala	Gly	Cys	Tyr	Gly	Tyr	Ala	Arg

515                      520                      525

Arg Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly  
530                      535                      540

Leu Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu  
545                      550                      555                      560

Glu Glu Ser Val Val  
565

<210> 59  
<211> 139  
<212> PRT  
<213> Homo sapiens

<400> 59  
Met Glu Lys Ala Lys Glu Arg Met Lys Lys Gln Ala Gln Asn Gly Lys  
1                      5                      10                      15

Ser His Ile Leu Gln Arg Asn Pro Leu Asn Ser Pro Gly Asn Leu Gln  
20                      25                      30

Glu Met Lys Met Thr Lys Thr Ala Lys Lys Arg Lys Thr Lys Ala Ala  
35                      40                      45

Leu Arg Val Glu Met Arg Ala Thr Thr Gln Glu Thr Gln Leu Gln Thr  
50                      55                      60

Cys Arg Lys Pro Val Lys Gly Pro Asn Tyr His Asn Glu Cys Cys Ile  
65                      70                      75                      80

Leu Arg Glu Thr Thr Arg Arg Leu Tyr Val Trp Leu Ser Asn Ile Leu  
85                      90                      95

Gly Phe Asp Met Asn Gln His Ile Val Leu Val Val Ile Asp Arg Thr  
100                      105                      110

Pro Val Cys Met Tyr Ile Ile His Ile Pro Leu Cys Cys Val Ser Gly  
115                      120                      125

Gly Lys Asp Ile Leu Ala Phe Phe Lys Ser Tyr  
130                      135

<210> 60  
<211> 145  
<212> PRT  
<213> Homo sapiens

<400> 60  
Met Ala Arg Pro Arg Pro Arg Glu Tyr Lys Ala Gly Asp Leu Val Phe  
1                      5                      10                      15

Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu  
20                      25                      30

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Glu Leu Leu Trp Gly Pro His Gln  
100